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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,516	03/27/2006	Yongfeng Wang	601/4	3829
27538 7590 04/15/2009 GIBSON & DERNIER L.L.P. 900 ROUTE 9 NORTH SUITE 504 WOODBIDGE, NJ 07095				
EXAMINER				
MOORE, SUSANNA				
ART UNIT		PAPER NUMBER		
1624				
MAIL DATE		DELIVERY MODE		
04/15/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/559,516

**Applicant(s)**

WANG ET AL.

**Examiner**

SUSANNA MOORE

**Art Unit**

1624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4, 6, 7 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 6, 7 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF 100)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

This is in response to the amendment and Remarks, filed 2/2/2009, with respect to Office Action mailed 9/2/2008 have been fully considered. Some rejections have been withdrawn as indicated below, while others are new as necessitated by the amendments. Thus, this is a Final Office Action. In summary, claims 1, 4, 6, 7 and 10 are currently pending and under consideration.

### ***Specification***

The disclosure is objected to because of the following informalities: throughout the the Specification, the term “phospholipase 5” is used. However, there is no such “phospholipase 5” per se. Phospholipases are class of enzymes that hydrolyze phospholipids into fatty acids and other lipophilic substances. There are four major classes, categorized as phospholipase A (A1 and A2), B, C and D. Each on of these has a unique role in the body. Types C and D are further broken down into phosphodiesterases (PDE). There are many types and isoforms of phosphodiesterases, e.g. phosphodiesterase 5, which enhances the vasodilatory effects of cyclic guanosine monophosphate (cGMP) and is the phosphodiesterase inhibited for the treatment of erectile dysfunction. If this is what Applicant intends, please amend the Specification accordingly. If not, please provide clarification of the term, e.g. literature which shows the terms can be used interchangeably. Appropriate correction is required.

***Claim Objections***

The objection of claims 1 and 3 because of the following informalities: please remove the term “to” between “together” and “form” on page 3, line 20; page 5, line 24; and page 7, line 25 is **withdrawn** based on the amendments.

The objection of claim 1 because of the following informalities: please insert a space between “,” and “imidazolyl” in line 5 is **withdrawn** based on the amendments.

The objection of claim 1 because of the following informalities: please replace “cyano-” with “cyano” on page 2, line 13 and page 4, line 19 is **withdrawn** based on the amendments.

The objection of claim 1 because of the following informalities: please replace square with a comma in page 3, line 3 is **withdrawn** based on the amendments.

The objection of claim 1 because of the following informalities: please insert a space between “,” and “CONR<sup>6</sup>R<sup>7</sup>” on page 3, line 4 is **withdrawn** based on the amendments.

The objection of claim 1 is objected to because of the following informalities: please insert a space between “,” and “or” on page 4, line 3 is **withdrawn** based on the amendments.

The objection of claim 1 because of the following informalities: please insert a space between “,” and “R<sup>13</sup>” on page 4, line 4 is **withdrawn** based on the amendments.

The objection of claim 1 because of the following informalities: please insert an “a” between “as” and “substituent” on page 4, line 10 is **withdrawn** based on the amendments.

The objection of claim 2 because of the following informalities: please insert a space between “,” and “R<sup>1</sup>” on page 5, line 1 is **withdrawn** based on the amendments.

The objection of claim 2 because of the following informalities: please insert a space between “,” and “C<sub>1</sub>-C<sub>3</sub>alkoxy” on page 5, line 9 is **withdrawn** based on the amendments.

The objection of claim 2 because of the following informalities: please insert a space between “,” and “CN” on page 6, line 1 is **withdrawn** based on the amendments.

Claim 1 is objected to because of the following informalities: there are two semicolons at the end of the definition of R<sup>1</sup>. Appropriate correction is required.

Claim 1 is objected to because of the following informalities: there are two semicolons at the end of the definition of R<sup>5</sup>. Appropriate correction is required.

Claim 1 is objected to because of the following informalities: there are two commas after the “OH” in the definition of R<sup>10</sup>. Appropriate correction is required.

Claim 1 is objected to because of the following informalities: an “or” is needed after the NR<sup>14</sup>R<sup>15</sup> in the definition of R<sup>10</sup>. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The rejection of claim 2 for reciting the limitation “C<sub>2-3</sub> alkyl or C<sub>1</sub>-C<sub>4</sub> alkoxy, the said alkyl and alkoxy are substituted with phenyl, hydroxyl; C<sub>2</sub>-C<sub>6</sub>alkenyl or C<sub>3</sub>-C<sub>6</sub> cyloalkyl;” in the definition of R<sup>12</sup> is **withdrawn** based on the amendments.

The rejection of claim 3 for reciting the limitation "NR<sup>6</sup>R<sup>7</sup>" in the definition of R<sup>1</sup> is **withdrawn** based on the amendments.

The rejection of claims 2 and 3 for reciting the limitation "C<sub>1</sub>-C<sub>6</sub> branched or straight chain alkyl substituted with ..., CO<sub>2</sub>R<sup>8</sup>, CONR<sup>14</sup>R<sup>15</sup>, CSNR<sup>14</sup>R<sup>15</sup> or C(NH)NR<sup>14</sup>R<sup>15</sup>," in the definition of R<sup>13</sup> is **withdrawn** based on the amendments.

The rejection of claim 3 for reciting the limitation "CONR<sup>13</sup>R<sup>14</sup>" in the definition of R<sup>10</sup> and R<sup>11</sup> is **withdrawn** based on the amendments.

The rejection of claims 1-4, 6, 7 and 10 under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for compounds of Formula 1, wherein R<sup>1</sup>= alkyl or a substituted alkyl; R<sup>2</sup> is hydrogen; and R<sup>5</sup>= SO<sub>2</sub>NR<sup>10</sup>R<sup>11</sup> does not reasonably provide enablement for other compounds of Formula 1 is **withdrawn** based on the amendments.

Claims 1, 4, 6, 7 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the variable R<sup>8</sup> is defined however, said variable has been removed by amendment. Thus, claim 1 is vague. Claims which depend from claim 1 which fail to remedy the deficiency of claim 1 are also rejected for the reasons set forth herein.

Regarding claim 4, most of the species lack antecedent basis based on the amendments. Applicant has removed where R<sup>10</sup> and R<sup>11</sup> can form a ring, which include the piperazinyl, pyrrolidinyl, morpholinyl, and piperidinyl rings. Furthermore, Applicant has removed the CO<sub>2</sub>R<sup>8</sup> substituent from the definition of substituents on R<sup>10</sup> and R<sup>11</sup>.

Regarding claim 10, the IC formula no longer is embraced by claim 1, and thus lacks antecedent basis. Applicant may make claim 10 independent but must define all variables in formulas IB, IC and IG. Thus, said claim is vague.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUSANNA MOORE whose telephone number is (571)272-9046. The examiner can normally be reached on M-F 8:00-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. James O. Wilson can be reached on (571) 272-0661. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Susanna Moore/  
Examiner, Art Unit 1624

**/James O. Wilson/  
Supervisory Patent Examiner, Art Unit 1624**